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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,078	06/19/2007	Michael-Rainer Busch	095309.58177US	8811
23911 7590 12/14/2007 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			EXAMINER NGHIEM, MICHAEL P	
			ART UNIT 2863	PAPER NUMBER
			MAIL DATE 12/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,078	<b>Applicant(s)</b> BUSCH ET AL.	
	<b>Examiner</b> Michael P. Nghiem	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 17-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17, 18, 20, 21, 23-30 and 33 is/are rejected.
- 7) ☒ Claim(s) 19, 22, 31 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9-25-06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities:

“S” (paragraph 0042, line 4) should be – SSW --.

“SSW” (paragraph 0049, line 4) should be – SSW --.

“SW” (paragraph 0051, line 2) should be – BSW --.

Appropriate correction is required.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the motor vehicle, motor (claim 24), processor (claim 33) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "14" and "14'" (Fig. 2) have both been used to designate an on-board computer. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 24, 25, and 32 are objected to because of the following informalities:

- claim 24, is the heat exchanger (line 2) related to the heat exchanger (line 3)?
- claim 24, "with" (line 3) should be – within --.
- claim 25, is the temperature sensor (line 3) related to the measuring device of claim 24 (line 5)?
- claim 32, is the motor vehicle (lines 2-3) related to the motor vehicle of claim 24 (line 2)?

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 31 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31, the "other data" (line 6) is not defined.

The remaining claims are also rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a rejected base claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17, 18, 20, 21, 23-30, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Unger et al. (US 6,695,473).

Regarding claim 17, Unger et al. discloses a method (Abstract, lines 1-5) for detecting presence (identifies component 16, Abstract, line 5) or absence of a prescribed heat exchanger (16) in a motor vehicle (motor vehicle, Abstract, line 1), comprising the following steps which are performed during operation of the motor vehicle:

(S1) observing temperature of a heat-exchanger medium (radiator temperature, Fig. 4) and at the same time observing further current operationally relevant parameters of the motor vehicle (vehicle speeds, Fig. 4) for a given time window (Fig. 4);

(S2) determining an expected time gradient of the temperature of the heat-exchanger medium (characteristic signature temperature jump, column 4, lines 20-30);

(S3) determining a current time gradient of the temperature of the heat-exchanger medium (ECU 42 observes current temperature behavior, column 4, lines 31-33); and

(S4) detecting the presence of a prescribed heat exchanger based on the expected and the current time gradients of the temperature of the heat-exchanger medium (column 4, lines 31-36).

Regarding claim 18, Unger et al. discloses:

(S1-1) measuring values of the temperature of the heat-exchanger medium in predefined time intervals and plotting the time profile of these values (Fig. 4); and

(S1-2) measuring values of the operationally relevant parameters (vehicle speed, Fig. 4) at predefined time intervals and plotting the time profiles of these values (Fig. 4).

Regarding claim 20, Unger et al. discloses the current temperature gradient is detected in method step (S3) based on the current values of the temperature of the heat exchanger medium in the time window (column 4, lines 18-23).

Regarding claim 21, Unger et al. discloses:

(S4-1) comparing the current and expected time gradients of the temperature of the heat-exchanger medium (column 4, lines 31-36);

(S4-2) taking into account this comparison result with reference to a predefined threshold value (column 4, lines 26-28); and

(S4-3) transmitting data signals when a prescribed heat exchanger (2) is present (via 39, column 4, lines 12-15).

Regarding claim 23, Unger et al. discloses the time window is determined to begin at a first time when at least one operationally relevant parameter reaches a predefined starting threshold value (0 kph, Fig. 4); and the time window is determined to end at a second time when the same or at least one further operationally relevant parameter reaches the same or a further predefined ending threshold value (between 50 and 100 kph, Fig. 4).

Regarding claim 24, Unger et al. discloses an apparatus (Fig. 1) for detecting the presence of a prescribed heat exchanger (16) in a motor vehicle (Abstract, line 1), comprising:

- at least one heat exchanger (16) with a heat-exchanger medium of the motor (10) of the motor vehicle (Fig. 1);

- at least one measuring device (48) for measuring the temperature of the heat-exchanger medium (column 4, lines 17-23); and

- an evaluation device (ECU 42) for evaluating data and for detecting the presence of a prescribed heat exchanger (Figs. 1, 2).

Regarding claim 25, Unger et al. discloses the measuring device comprises:



at least one temperature sensor (48) for measuring the temperature of the heat-exchanger medium (Fig. 3);

a holding element (50) or holding the temperature sensor (Fig. 3); and

a connection device (40) for connection to the evaluation device (Fig. 3).

Regarding claim 26, Unger et al. discloses the holding element is connected to the heat exchanger in a non-releasable manner (column 4, lines 54-58).

Regarding claim 27, Unger et al. discloses the holding element for holding the temperature sensor has a holder (means for holding 48 within 50) which corresponds to said temperature sensor (column 3, lines 45-47).

Regarding claim 28, Unger et al. discloses the temperature sensor has a predetermined breaking point and is connected to the holding element such that it is rendered permanently inoperable after it is removed from the holding element (column 4, lines 58-60).

Regarding claim 29, Unger et al. discloses the temperature sensor is a constituent part of an adapter (low speed serial data capability, column 3, lines 47-48) of the connection device (column 3, lines 45-48).

Regarding claim 30, Unger et al. discloses the adapter and the holding element have corresponding fastening elements (permanent coupling, column 4, lines 58-60) which are designed such that they cannot be released following assembly (suggested by "permanent" coupling).

Regarding claim 33, Unger et al. discloses said evaluation device comprises a processor (processor of ECU 42) which is programmed to:

- determine an expected time gradient of measured temperature of the heat-exchanger medium (characteristic signature temperature jump, column 4, lines 20-40);

- determine a current time gradient of said measured temperature of the heat-exchanger medium (ECU 42 observes current temperature behavior, column 4, lines 31-33); and

- detect presence of a prescribed heat exchanger based on said expected and current time gradients (column 4, lines 31-36).

### ***Allowable Subject Matter***

Claims 19, 22, 31, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Reasons For Allowance***

The **combination** as claimed wherein a method or system for detecting the presence or absence of a prescribed heat exchanger comprising comparing the plotted current operationally relevant parameters with predefined values; determining an associated current operating state in accordance with this comparison (claim 19) or incrementing at least one counter in accordance with the comparison result; carrying out method steps until a predefined counter reading is reached (claim 22) or a data memory for storing predefined threshold values, operating state data and other data; and at least one counter (claim 31) is not disclosed, suggested, or made obvious by the prior art of record.

### ***Contact Information***

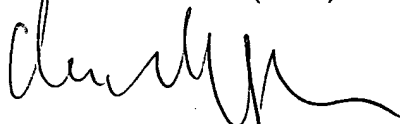
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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MICHAEL NGHIEM  
PRIMARY EXAMINER

Michael Nghiem

December 9, 2007